

systemic and pulmonary; its action being "due, solely and entirely, to the toxic effect of the morbid matter on the nervous system" (p. 103).

Lastly, that which justifies the title of the book, "The Antidotal Treatment of Fever," is the assertion, that *carbonic acid*, given especially during the cold stage, is the *antidote* for all forms of fever. The manner in which Dr. Parkin adduces facts to support this view, not only from his own experimental medication in practice, but from that of others, and from familiar medical records, is that of an earnest as well as ingenious advocate. Effervescing draughts, commonly regarded as agreeable palliative, minor remedies, are by our author promoted to the rank of therapeutic agents in chief; heroic, though so gentle; "suaviter in modo, fortiter in re." All other agencies in therapeutics are, with him, to be extinguished by this gas. Champagne must now be understood to do good in yellow fever and typhus, not through its alcoholic constituent, but by its effervescence. Quinia Dr. Parkin believes to be too uncertain, and often injurious, to be given longer in intermittent; carbonic acid must take its place.

These are assertions not only of opinion, but also concerning clinical facts. Only by clinical experience, carefully and largely tested, can they be proved or disproved. If we share with many, probably most of our readers, very strong doubts as to the exactness of Dr. Parkin's interpretations, and the soundness of his practical conclusions, his appeal has been made to experience; and that appeal must, of course, be sustained.

H. H.

ART. XXXIII.—*Physics of the Infectious Diseases. Comprehending a Discussion of Certain Physical Phenomena in Connection with the Acute Infectious Diseases.* By C. A. LOGAN, A.M., M.D. 12mo. pp. 212. Chicago: Jansen, McClurg & Co., 1878.

A LONG residence on the western coast of South America has led Dr. Logan to notice certain remarkable facts as to the non-existence of some infectious diseases, and the modification of others, in large portions of that volcanic belt of land.

The old theory, that earthquakes and volcanic eruptions are mere mechanical activities of the boiling and bubbling molten matter under the earth's crust, is entirely discarded by Dr. Logan. Electric disturbance, or rather perhaps the restoring of electric equilibrium, is believed to be the cause of the phenomena in question. Regular thunder-storms are rare in the earthquake region. Preceding the convulsions, displays of electric lights in the heavens are quite common. The magnetic needle is affected, and the hair of animals is charged with electricity. Peculiar oppression, or other strange sensations of the nervous system, are noticed. A peculiar state of the atmosphere is often remarked. Meteorites are frequently unusually abundant. The production of rain and of ozone also point to electric action as the essence of the phenomena.

Having briefly noted some of the peculiarities of the region, as stated and interpreted by our writer, we will now pass to the special characteristics of disease as there existent.

Whatever may be thought of Dr. Logan's reasoning, his statements as to the absence or modification of epidemic diseases on the west coast of South America are sufficiently startling to secure attention and elicit thought. The value of facts is not destroyed by any lack of skill in their interpretation.

Throughout the rainless regions, and those where the waterfall is purely sea-

sonal—subject, as we have seen, to frequent earthquakes—a large number of those infectious diseases which devastate other countries are practically unknown. And our author adds, with less positiveness, that where a rainy season exists such diseases prevail, if at all, especially during that season, when the shocks have ceased for the year.

The absence of these general scourges of mankind from large portions of the western coast of South America is not due to lack of facilities for importing the infectious principles. Commercial intercourse with the world at large, and even with neighbouring countries afflicted with cholera and with yellow fever, is constant and wholly unrestricted. Nor is lack of humidity the cause of this exemption. Not only are some of the favoured regions well watered by mountain streams, but they are also recipients of moisture from the sea, and the seat of extremely heavy dews. Mildew and rust are common annoyances where rain is unknown. Indeed there are some places possessing copious seasonal rains which share with the rainless districts an exemption from the zymotics. The one particular in which all agree is the existence of constant shocks and eruptions—regarded by Dr. Logan as manifestations of intense electric disturbance.

Cholera and yellow fever are reported to be wholly absent from the southern three-fourths of the western slope; and of very doubtful existence near the equator. Scarlatina has been reported to have occurred in certain localities; but it has acquired no foothold whatever in any part of this extended but narrow strip. Neither of the great continued fevers, typhus or typhoid, is known at all. Diphtheria and “hay-fever” are equally absent. Cerebro-spinal meningitis and relapsing fever may possibly have appeared to a very limited extent.

Variola is stated to become so changed by local influences as to almost lose its identity. Among the filth and wretchedness of the poor in the Chilean cities it constantly abides, and at intervals acquires the character of an epidemic. It then proves terribly fatal; but never leaves the cities, nor, indeed, does it often extend outside of the lowest slums in which it arises. The disease differs here from that of other lands in several points; but the most important are the inefficacy of vaccination, and the liability to attack the same patient repeatedly. All possible means have been tried to secure the best lymph, surrounded by all possible precautions against deterioration; but no protective influence follows its use. We are not informed as to the course of the vaccination wound. The change of type here noted is said to obtain in Peru as well as Chili.

Syphilis prevails to a fearful extent. Erysipelas becomes epidemic at times, assuming hemorrhagic and gangrenous forms, and causing great mortality. In puerperal women it takes the shape of metro-peritonitis. Dysentery is common, especially among the poor. Influenza has not unfrequently appeared as an epidemic, almost simultaneously at distant points.

One malady is noticed as peculiar to Chili—the chabalonga. This at times becomes epidemic, especially among the lowest classes, visiting the better classes mildly if at all. It seems to be a product of filth and wretchedness. There is no eruption. The name comes from a characteristic sequel—the falling of the hair. Some physicians have regarded it as identical with typhus, as that appeared among the Irish peasantry.

A peculiar fever, with warty eruptions, appeared in Peru among labourers engaged in building a railroad through soil never before disturbed by man, among the Andes. Some claim that it has previously appeared under similar conditions. The tubercles are from the size of a pea nearly to that of a hen's egg. They tend to bleed profusely. Stimulants and tonics were employed; but neither in this affection nor in the chabalonga did quinia exhibit specific powers.

We ought perhaps to have earlier drawn attention to the remarkable fact, that

the large cities of this coast, so wonderfully free from the maladies which ordinarily bear with especial severity upon the crowded masses of the poor, are abominably deficient in the sanitary conditions generally thought essential to secure reasonable freedom from fatal epidemics. In most cases the lower classes are ignorant, shiftless, and vicious, and living in the most deplorable extremes of bad diet, bad drainage, and unwholesome surroundings. The character and course of the diseases which *do* prevail, indicate the constitutional weakness and depression of vitality that might be expected under such circumstances. Some especial cause, therefore, must exist for the absence of the infectious diseases of other regions. This Dr. Logan is disposed to find in the peculiar electric or magnetic conditions of the locality—of which the startling mechanical phenomena of the coast are the token and expression. The effect of electricity on chemical and vital action is referred to at considerable length. The author's line of thought may be suggested by one of his illustrations; if chemical change in fresh, pure milk is almost instantly brought about by a thunder-storm, why may not the formation of toxic compounds, or the development of certain organic germs, be equally as strictly dependent on electric conditions? Accordingly, he believes that electric energy may and does decompose "the infectious molecule," by rearrangement of atoms or their dispersal. That action of ozone, which we designate as antiseptic or disinfectant, is probably as yet but partially appreciated. And a free evolution of this agent is known to *attend* telluric convulsions, as it undoubtedly does forms of electric activity. A peculiar odour, pretty certainly that of ozone, has in all times and countries been observed in connection with earthquake shocks, and with the so-called "stroke of lightning."

In respect as it describes the diseases peculiar to a region but little known to the European and American profession, the modifications of smallpox there observed, and the extraordinary exemption from several of the most destructive of the acute infectious diseases prevailing elsewhere—this book possesses great interest for all. As to the peculiar speculations of the writer there may be room for a diversity of opinion; but even those who may be unable wholly to follow him, cannot fail to recognize the value of his suggestions as food for thought, and as providing possibly the seeds for harvests in the future.

B. L. R.

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ART. XXXIV.—*Atlas of Skin Diseases.* By LOUIS A. DUHRING, M.D., Professor of Skin Diseases in the Hospital of the University of Pennsylvania; Physician to the Dispensary for Skin Diseases, Philadelphia, etc. Part IV. Philadelphia: J. B. Lippincott & Co., 1878.

THIS part appears with commendable promptness, and sustains in all respects the favourable opinion we have so recently expressed. The diseases illustrated are: Vitiligo, Alopecia areata, Tinea favosa, and Eczema (rubrum). The first three are somewhat rare affections, but their recognition by the practitioner is of importance, and will be rendered easier by the typical representations here given. The last picture, infantile acute eczema, shows one of the most common and vexatious diseases in all its characteristic diversity of efflorescence.

The artist has apparently so guarded his effects against exaggeration that the colouring in some portions of this latter plate and that of favus might be made considerably more brilliant in parts without surpassing nature.

The accompanying text preserves its previous high standard of simple excellence.

J. C. W.